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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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535 7590 01/06/2009

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EXAMINER

TRAN, KHANH C

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/534,996	Applicant(s) ETTORRE ET AL.	
	Examiner KHANH C. TRAN	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 and 10-16 is/are allowed.
- 6) ☒ Claim(s) 8,9,17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/22/2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Amendment filed on 10/22/2008 has been entered. Claims 1-18 are still pending in this Office action.

Response to Arguments

2. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

3. The Drawings filed on 10/22/2008 has been reviewed and entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8-9 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsunehara et al. U.S. Patent 7,016,653.

Regarding claim 8, see column 4 lines 24-65, Tsunehara et al. teaches in FIG. 2 a mobile terminal including signals generated by **a signal receiver 101** for generating received signals that are written in **the received signal memories 1021 to 102N sequentially via the received signal memory controller 300**. The received signals

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written in the received signal memories 1021 to 102N are read by the delay profile generators 1031 to 103N via the profile generation memory controller 301, then, inputted to the delay profile generators 1031 to 103N (see FIGS. 3 and, 4). Each of the delay profile generators 1031 to 103N includes a matched filter and is enabled to calculate a correlation value between a received signal and a spreading code sequence, **at each receiving timing**, to generate a delay profile that denotes a value corresponding to the correlation value. In view of that, received signal memories 1021 to 102N correspond to the memory buffer claimed.

Further in column 6 line 6 via column 7 line 15, Tsunehara et al. teaches in FIG. 4 shows an example of access controlling by the memory controller for profile generator 301 (shown in FIG. 2). The memory controller for profile generator 301 controls received signal read accesses of the delay profile generators 1 (1031) to N (103N) to the received signal memories 1 to N. **The memory controller for profile generator 301 controls those accesses of the delay profile generator 1 so as to be done sequentially in an ascending order of memory numbers 1, 2, 3, . . . N.**

Tsunehara et al. does not expressly disclose updating the reading position as set forth in the application claim.

However, as recited above, because received signals are written in the received signal memories 1021 to 102N sequentially via the received signal memory controller 300 and memory controller for profile generator 301 controls those accesses of the delay profile generator 1 so as to be done sequentially in an ascending order of memory numbers 1, 2, 3, . . . N, therefore, one of ordinary skill in the art at the time the invention

was made to recognized that memory controller for profile generator 301 updates the reading position so that the delay profile generator 1 read the received signals sequentially in an ascending order of memory numbers 1, 2, 3, . . . N.

FIG. 2 further discloses delay profile memory 1041 for storing output of the delay profile generator 1 1031.

Regarding claim 9, as recited in claim 8 rejection, delay profile memory 1041 corresponds to the profile accumulation memory claimed.

Regarding claim 17, in addition to claim 8 rejection, referring back to FIG. 2, for the rejection purposes, the received memory 1 via N (1021 via 102N) correspond to input signal $y(k)$ claimed; delay profile generators 1, 2, ..., N correspond to the code generator circuit and memory buffer claimed.

In column 6 line 60 via column 7 line 15, FIG. 4 shows an embodiment of access controlling by the memory controller for profile generator 301. The memory controller for profile generator 301 controls received signal read accesses of the delay profile generators 1 (1031) to N (103N) to the received signal memories 1 to N. The memory controller for profile generator 301 controls those accesses of the delay profile generator 1 so as to be done sequentially in an ascending order of memory numbers 1, 2, 3, . . . N. Similarly, the memory controller for profile generator 301 controls the accesses of the delay profile generator 2 so as to be done sequentially in a cyclical order of memory numbers 2, 3, 4, . . . N, 1. Similarly, the memory controller for profile

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generator 301 controls the accesses of the delay profile generator N to the received signal memories so as to be done sequentially in an order of memory numbers N, 1, 2, 3, . . . N-1.

Tsunehara et al. does not expressly disclose updating the reading position as set forth in the application claim.

As recited above, because the memory controller for profile generator 301 controls the accesses of the delay profile generators 1, 2, ..., N, one of ordinary skill in the art at the time the invention was made would have recognized that the act of controlling the accesses corresponds to the steps of sequentially reading, correlating and updating as set forth in the application claim.

Regarding claim 18, in addition to claim 17 rejection, FIG. 2 further discloses delay profile memories 1041 ... 104N for storing outputs from delay profile generators 1 ... N. Delay profile memories 1041 ... 104N correspond to the profile accumulation memory claimed.

Allowable Subject Matter

5. Claims 1-7 and 10-16 are allowed.

Conclusion

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6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kondo U.S. Patent 6,178,193 B1.

Papasakellariou U.S. Patent 7,103,095 B2.

Frank et al. U.S. Patent 6,731,622 B1.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHANH C. TRAN whose telephone number is (571)272-3007. The examiner can normally be reached on Monday - Friday from 08:00 AM - 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KCT

***/KHANH C. TRAN/
Primary Examiner, Art Unit 2611***